UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,138	04/27/2000	Takaoki Sasaki	0941.63996	2255

7590 05/12/2004

Patrick G Burns Esq
Greer Burns & Crain Ltd
300 S Wacker Drive
Suite 2500
Chicago, IL 60606

EXAMINER	
MCARDLE, JOSEPH M	

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/559,138	SASAKI ET AL.	
	Examiner	Art Unit	
	Joseph McArdle	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 April 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 6-9 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson (U.S. Patent No. 5050212) in view of Zizzi (U.S. Patent No. 6185681). In regards to claims 1 and 14, Dyson discloses a design that pertains to a method for verifying that a file is identical with a previous version of the file prior to using the file. Dyson discloses in column 3, lines 11-25 that a unique first identifier (see column 3, lines 24-25 where the identifier is referred to as a signature) is generated based on the contents of the file. This disclosure meets the limitations set forth under claims 1 and 14 that call for having a fist signature information unit that produces first signature information. Dyson further discloses in the aforementioned location that a preferred method of generating the identifier (signature) is by performing a hash on the file. This disclosure meets the limitations set forth under claims 1 and 14 that call for using file data in order to calculate the signature. Dyson then discloses in column 3, lines 36-38 that the first identifier (signature corresponding to the file) is stored on the computer so it can be recovered later. This disclosure meets the limitations set forth

under claims 1 and 14 that call for having a signature information storage control unit that stores the first signature information in a storage unit. However, Dyson's design makes no mention of implementing the above design features in response to a close request to close a file as well as having a signature returning unit that returns to the process for the file specified by the close file event after the first signature is calculated. Zizzi discloses a design that relates to using encryption in order to provide confidentiality, source authentication and data integrity. Zizzi goes on to disclose in column 4, lines 27-36 that after a user issues a close command for a document (file), control is transferred to a crypto module that performs encryption on the document (file) and then releases control so the close operation can be performed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Zizzi's teachings on performing encryption in response to a close request into Dyson's design in order to achieve a design that is capable of allowing file signatures to be generated in response to a close file request for the purpose of providing a means for verifying file integrity.

3. In regards to claim 2, Dyson discloses in column 3, lines 11-25 that a first identifier (signature) is generated by performing a hash of the file. This disclosure meets the limitations set forth under claim 2, that call for having a reading unit that is capable of reading the data from a particular file so that a signature can be calculated based upon the information that was read out. However, Dyson makes no mention of reading out the file information in response to a close file request. Zizzi discloses in column 4, lines 27-36 that after a user issues a close command for a document (file),

control is transferred to a crypto module that performs cryptographic processes on the document (file). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Zizzi's teachings on performing encryption in response to a close request into Dyson's design in order to achieve a design that is capable of allowing a file signature to be generated based upon the data contained in the file.

4. In regards to claims 6, 10 and 15, Dyson further discloses in column 4, lines 3-10 that in order to be certain that the file has remained unaltered and is suitable for safe execution a second identifier (signature) is generated based on the contents of the unverified file. This disclosure meets the limitations set forth under claims 6 and 15 that call for having a second signature information producing unit that produces a second signature in response to a request for opening the file. Dyson then discloses in column 4, lines 11-20 that the first and second file identifiers (file signatures) are compared to each other in order to determine if they match. This disclosure meets the limitations set forth under claims 6, 10 and 15 that call for having a signature agreement determining unit that determines whether the first and second signatures match. Dyson then discloses in column 4, lines 21-26 that if it is determined that the signatures match, then the file may be opened and/or executed. This disclosure meets the limitations set forth under claims 6, 10 and 15 that call for having a result producing unit that identifies the result of the signature agreement determining unit.

5. In regards to claims 7 and 11, Dyson further discloses in column 4, lines 3-10 that prior to using (opening) a file, a second identifier (signature) is calculated based on

the contents of the file itself. This disclosure meets the limitation set forth under claims 7 and 11 that call for having an open file reading unit that is capable of allowing the second signature to be generated based upon data read out by the open file reading unit.

6. In regards to claims 8 and 12, Dyson further discloses in column 4, lines 3-10 that in order to be certain that a file has remained unaltered and is suitable for safe use and/or execution, a second identifier (file signature) is generated based upon the contents of the unverified file before the file is allowed to be opened or executed. Dyson then discloses in column 4, lines 11-20 that the first and second file identifiers (file signatures) are compared with each other in order to determine if they match. These disclosures meet the limitations set forth under claims 8 and 12 that call for determining whether the first signature information needs to be checked and if so, generating a second file signature with which to compare it to because in Dyson's design whenever access to a file is desired the first file identifier (file signature) gets compared against a newly created second file identifier (file signature) in order to determine if they match (ensuring the validity of the file).

7. In regards to claims 9 and 13, Zizzi goes on to further disclose in column 7, lines 64-67 the use of a file administration table that is maintained in a database for the purpose of defining criteria for which files are to be encrypted as well as what keys are to be used. This file administration table performs a similar function to that of figure 9 contained in the applicant's specification because it determines/sets criteria for the files of interest. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate Ziizi's teachings on the use of file administration tables into the Dyson-Zizzi combination in order to achieve a design that is capable of having a mode setting unit that sets a processing mode for attaching signature information to a designated file.

8. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson and Zizzi as applied to claim 1 above, and further in view of Walsh (U.S. Patent No. 5956481). Dyson and Zizzi's design disclosed above meets all of the aforementioned limitations set forth under claim 1 above. However, Dyson and Zizzi's design makes no mention of having a signature information attaching unit that determines if the first signature is to be attached to the file designated by the close request, so that the file and its signature are stored together. Walsh discloses a design that relates to protecting data files residing on a computer. Walsh further discloses in column 17, lines 14-15 that when a selected file is closed, its digital signature gets saved in parallel with the selected file. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Walsh's teachings on saving a file and its signature together when the file is closed with Dyson and Zizzi's design in order to achieve a design that is capable of attaching the first signature to the file designated by the close request so that the file and the first signature are stored together.

9. In regards to claim 5, Zizzi goes on to further disclose in column 7, lines 64-67 the use of a file administration table that is maintained in a database for the purpose of defining criteria for which files are to be encrypted as well as what keys are to be used.

This file administration table performs a similar function to that of figure 9 contained in the applicant's specification because it determines/sets criteria for the files of interest. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Ziizi's teachings on the use of file administration tables into the Dyson-Zizzi-Walsh combination in order to achieve a design that is capable of having a mode setting unit that sets a processing mode for attaching signature information to a designated file.

10. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson in view of Zizzi in view of Depew (U.S. Patent No. 6047342). In regards to claims 16 and 17, Dyson discloses a design that pertains to a method for verifying that a file is identical with a previous version of the file prior to using the file. Dyson discloses in column 3, lines 11-25 that a unique first identifier (see column 3, lines 24-25 where the identifier is referred to as a signature) is generated based on the contents of the file. This disclosure meets the limitations set forth under claims 16 and 17 that call for having a fist signature information unit that produces first signature information. Dyson further discloses in the aforementioned location that a preferred method of generating the identifier (signature) is by performing a hash on the file. This disclosure meets the limitations set forth under claims 16 and 17 that call for using file data in order to calculate the signature. Dyson then discloses in column 3, lines 36-38 that the first identifier (signature corresponding to the file) is stored on the computer so it can be recovered later. This disclosure meets the limitations set forth under claims 16 and 17 that call for having a signature information storage control unit that stores the first

signature information in a storage unit. However, Dyson's design makes no mention of implementing the above design features on an external unit constituted by a PC card. Depew teaches in column 1, lines 32-36 and in column 1, lines 42-50 that a demand exists for ways to add processing functionality to a computer system and that PC processing cards can provide the added functionality without requiring specialized hardware that is not already existent in contemporary computer systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Depew's teachings into Dyson and Zizzi's design in order to achieve a design that is capable of allowing the file processing unit to function as an external unit constituted by a PC card for the purpose of adding processing functionality to the system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph McArdle whose telephone number is (703) 305-7515. The examiner can normally be reached on Weekdays from 8:00 am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph McArdle
Examiner
Art Unit 2132

jmm

GILBERTO BARRON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100